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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,498	07/01/2003	Johann Schuster	P03,0256	3362
26574	7590	07/22/2004	EXAMINER	
SCHIFF HARDIN, LLP PATENT DEPARTMENT 6600 SEARS TOWER CHICAGO, IL 60606-6473			VARGAS, DIXOMARA	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/611,498	Applicant(s) SCHUSTER ET AL.	
	Examiner Dixomara Vargas	Art Unit 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 10-13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/15/03; 04/26/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaaf (EP 1262788 A2).

With respect to claim 1, Schaaf discloses in a magnetic resonance apparatus (as seen on Figure 1) having a scanner with an interior examination space (Figure 1, #40) and a gradient coil unit that is movable into and out of said examination space (Figure 1, #60), and a patient bed that is movable into and out of said examination space (Figure 3, #50), the improvement of a device for inserting said gradient coil unit into said examination space comprising (Figures 1-3): a movable carrier unit (#30); and a boom (#70a - #70x) having a first end attached to said carrier unit (#71) and a second-opposite end adapted to receive a gradient coil unit (#72), said boom being extendable in a horizontal direction to insert said gradient coil unit into said examination space, said boom being mechanically independent of said patient bed (as seen on Figure 2, #70a - #70x).

3. With respect to claim 2, Schaaf discloses said boom connection (Figure 2, # 70a) has a releasable connection adapted to releasably connect said second end of said boom to said gradient coil unit (#72).

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4. With respect to claim 3, Schaaf discloses the carrier unit varies a position of said boom in a vertical direction (as seen on Figures 1-2, axis #75a).
5. With respect to claim 8, Schaaf discloses a locking arrangement on said boom adapted to interact with said examination space to lock said boom in a specified inserted position relative to said examination space (Figure 2, #72 with respect to #61a and #62a).
6. With respect to claim 9, Schaaf discloses a locking arrangement adapted for connection to said gradient coil unit for interacting with said examination space to lock said gradient coil unit in a specified inserted position relative to said examination space (Figure 2, #72 with respect to #61a and #62a).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schaaf (EP 1262788 A2) in view of Mastandrea Jr. et al. (US 5,783,943).

With respect to claim 4, Schaaf discloses the claimed invention as stated above in paragraph 2 except for a boom comprises electrical connections adapted to supply power to said gradient coil unit. However, Mastandrea discloses a boom comprises electrical connections adapted to supply power to said gradient coil unit (Figure 1, wherein the gradient and carrier structure #54 are connected to the gradient coil control #130). Therefore, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to have a boom with electrical connections adapted to supply power to said gradient coil unit for the purpose of energizing the gradient coil system with the specific desired current distribution to generate the gradient pulses required within the pulse sequence in a simplified structure that allows the exchange of the gradient coils only without changing the remaining components of the MRI apparatus.

9. With respect to claims 5-7, Schaaf discloses the claimed invention as stated above in paragraph 2 except for a glide mechanism adapted to cooperate with said examination space for guiding and fixing the boom in the examination space. However, Mastandrea discloses a glide mechanism adapted to cooperate with said examination space for guiding and fixing (Figure 3, #42 and #91) the boom in the examination space (#58). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a glide mechanism adapted to cooperate with said examination space for guiding and fixing the boom in the examination space for the purpose of providing a mechanism for moving the gradient coil system in horizontal direction and positioning the gradient system in the region of interest.

Allowable Subject Matter

10. Claims 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

a. With respect to claim 10, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest in a magnetic resonance apparatus having a scanner with an interior examination space and a gradient coil unit that is movable into and out of said examination space, and a patient bed that is movable into and out of said examination space, the improvement of a device for inserting said gradient coil unit into said examination space comprising a telescoping boom in combination with the remaining limitations of the claim.

b. With respect to claim 11, the claim has been found allowable over the prior art of record because the prior art of record fails to teach or fairly suggest in a magnetic resonance apparatus having a scanner with an interior examination space and a gradient coil unit that is movable into and out of said examination space, and a patient bed that is movable into and out of said examination space, the improvement of a device for inserting said gradient coil unit into said examination space comprising: a docking device adapted to dock said carrier unit to said scanner to position said carrier unit and said boom relative to said examination space for insertion of said gradient coil unit into said examination space in combination with the remaining limitations of the claim.

c. With respect to claims 12 and 13, the claims have been found allowable due to its dependency on claim 11 above.


Conclusion


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional prior art cited in the PTO 892 discloses MRI systems with removable gradient coil configuration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on 8:00 am. to 4:30 pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dixomara Vargas
Art Unit 2859
July 21, 2004


Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800